1: McGee E-5 (1894-1895)1898 NU31 Seri NU31

On putting the indi-

323 [462] cations together it would seem probable that the ware is made by the women, and that each piece is shaped from a lump of tempered and well-kneaded clay of suitable size, first hollowed and rudely shaped over one hand, and gradually expanded by spiral rubbing, kneading, and pressure between the hands of the maker. The burning is incomplete and variable, suggesting a little outdoor fire in a shallow pit adapted to a single vessel. The ware is without glaze or slip or other surficial treatment save that the lamellar texture is best developed toward the surfaces; hence it is so porous that the filled vessel is moist even in the sun.

482 [462] Ordinarily women are the water-bearers, each carrying an olla balanced on the head with the aid of a slightly elastic annular cushion, usually fashioned of yucca fiber (plate XXXII and figure 15), though in some cases two ollas are slung in nets at the ends of a yoke (figure 16) after the Chinese coolie fashion (this device being apparently acultural).

FIG. 15.—Seri olla ring.

415 The function of the conventional Seri olla is exclusively that of a canteen or water-carrying vessel, and its form is suited to no other use; while its lines, like its thinness of wall, are adapted to the stresses of internal and external pressure in such wise as to give maximum strength with minimum weight. It is by reason of this remarkably delicate adaptation of materials to purposes that the plain olla figured in plate XXXIII, weighing an ounce or two more than 10 pounds in dry air, holds and safely carries three and one-third times its weight of water. When such ollas are broken, the larger pieces may be used as cups or

FIG. 16.—Water bearer's yoke.

1: McGee E-5 (1894-1895)1898 NU31 Seri NU31

ness of the cords used in construction; in fact, the outer layers of canes 501
are so ingeniously interlocked by the insertion of their butts into interstices that each bundle holds itself together with slight aid from the exterior cording, while even the bundles themselves are held in proper relative position by the secure terminal tying rather than by the intertwined cording of the body of the craft. And the entire construction exemplifies the compartment principle to perfection; a slight injury may affect but a single joint of one out of several thousand canes, while even a severe fall on sharp rocks seldom injures more than a few score canes, and these in a few joints only. The most objectionable feature of the balsa lies in the fact that it affords little protection from the wet. The water rises freely through the reed bundles to a height depending on the load, and not only the spray but the whitecaps and combers as well dash freely over the unprotected body of the craft; but this defect is of little consequence to the hardy and nearly nude navigators, or to their scanty and practically uninjurable freight.

FIG. 28—Seri balsa as seen by *Nuevaguasti* party.

The gracefulness and efficiency of the balsa itself stand in strong 502
contrast with the crude methods of propulsion. According to Mashém, [462]
the craft is commonly propelled by either one or two women lying prone on the reeds and paddling either with bare hands or with large shells held in the hands; according to Hardy, the harpoon main shaft is used by turtle fishermen for paddling (and probably for poling, also); according to the Dewey picture (figure 28), the vessel is driven by a woman with a double-end paddle like that used in connection with the conventional canoe; while the expedition of 1895 found on Isla Tiburon four or five paddles rudely wrought from flotsam boards and barrel-staves, and partly hafted with rough sticks 3 or 4 feet long, but partly without handles and evidently designed to be grasped directly, like the shells of Mashém's descriptions. No trace of oars, rowlocks, sculls, rudders, or masts were found, and there is nothing to indicate the faintest notion of sails and sailing. On the whole there is no trace of well differentiated propelling devices—i. e., the craft is perfected only as a static device and not at all as a dynamic mechanism.

1; McGee E-5 (1894-1895)1898 NU31 Seri NU31

mon convenience. Usually the several jacales are entirely separate; but at Punta Tormenta, Punta Narragansett, and still more notably at Roda Ballena, individual huts were found either extended to double length or joined obliquely in such wise as to show two fronts (as illustrated in plate VI). The conventional frameworks appear to be common tribal property, at least to the extent that an abandoned skeleton may be preempted by any comer; while the addition of walls and roof appears to afford a prescriptive proprietary right to the elderwoman and family by whom the work is done—though the right seems to hold only during occupancy, or until the temporary covering is dislodged.

The jacales are without semblance of furnishing, beyond an occasional shat and a few loose pebbles used as hupfs; though the nooks behind the bows and tie-sticks sometimes serve as places of concealment for paint-cups, awls, hair bobbins, and other domestic trifles. There is no floor but earth, and this remains in natural condition, except for trampling and wearing into wallows, recalling those of fowls and swine, which afford a rough measure of the periods of occupancy; there is no fireplace—indeed, fires are rarely made in the jacales, nor for that matter frequently anywhere; and there are no fixed places for bedding, water ollas, or other portable possessions, none of which are left behind when the householders are abroad.

Little is known of the actual process of jacal building, especially in Seriland proper; but the observations of Señor Encinas and his vaqueros on the frontier corroborate Mashém's statements that the houses are built by (and belong to) the matrons; that several women customarily cooperate in the collection of the okatilla and erection of the framework; that the only tools used in the processes are hupfs and miscellaneous sticks; and that the placing and fitting of the beams and tie sticks are accompanied by a chant, usually led by the eldest matron of the group. The same informants support the ready inference from the structure that the shrubbery and other material forming walls and roofs are gathered and placed from time to time by the women occupying the jacales.

The Seri building chant is suggestive. Neither Señor Encinas nor Mashém regarded it as religious or even ritualistic, but merely as a work-song designed (in the naïve notion of the latter) to make the task lighter; and it seems probable that the local interpretation is correct. If so, the simple chant at once offers rational explanation for its own existence, and opens the way to explanation of the elaborate building rituals of more advanced tribes. The work-song is a common device in many lowly activities, ranging from those of children at play to those of sailors at the windlass, and undoubtedly serves a useful purpose in guiding, coordinating, and concentrating effort; to some extent the vocal accompaniment to the manual or bodily action apparently expresses that normal interrelation of functions manifested by second-

1: McGee E-5 (1894-1895)1896 NU31 Seri NU31

relation may be considered to begin in the animal realm with organisms adapted to environment through physiologic processes, and to end in that realm of enlightened humanity in which mind molds environment through complete nature-conquest. In the serial scale so defined the various primitive tribes and more advanced peoples may be arranged in the order of mental power or culture-status; when the same arrangement will express in inverse order the relative closeness with which the several tribal minds reflect their environments. It follows that the lowly minds and craft of the Seri reflect their distinctive environment with exceeding, perhaps unparalleled, closeness, because of their very lowliness; it follows, too, that any other equally lowly folk imported into the region and perfectly wonted to it by generations of experience would equally reflect the physical features of the region in their craft and in their thinking; it follows, also, that if the Seri were transported into any other district of equally distinctive physical features, they would gradually adapt themselves to the new environment—though with some added intelligence, and hence with diminished closeness, as is the way of demotic development—in such manner that their craft and thinking would reflect its features. In a more general way it follows that those similarities in culture, or activital coincidences, which have impressed the ethnologic students of the world (notably Powell and Brinton), are normal and inevitable in primitive culture and of diminishing prominence with cultural advancement.

Social Organization

Among the Seri, as among many other aboriginal tribes, the social relations are largely esoteric; moreover, in this, as in other savage groups, the social laws are not codified, nor even definitely formulated, but exist mainly as mere habits of action arising in instinct and sanctioned by usage; so that the tribesmen could not define the law even if they would. Accordingly the Seri socialsy[1] is to be ascertained only by patient observation of conduct under varying circumstances. Unfortunately, the opportunities for such observation have been too meager to warrant extended description, or anything more, indeed, than brief notice of salient points.

Clans and Totems

The most noticeable social fact revealed about the Seri rancherias is the prominence of the females, especially the elderwomen, in the management of everyday affairs. The matrons erect the jacales without help from men or boys; they carry the meager belongings of the family and dispose them about the habitation in conformity with general custom and immediate convenience; and after the household is prepared, the men approach and range themselves about, apparently in a definite

[1] A convenient term proposed by Patten.

1: McGee E-5 (1894-1895)1898 NU31 Seri NU31

approaching nubility—receive some advantage through the connivance of the matrons. To a considerable extent in the matter of sustentation, and to a dominant degree in the matter of apparceling, the distribution of values is affected by a highly significant (though by no means peculiar) humanitarian notion of inherent individual rights—i. e., every member of the family or clan is entitled to necessary food and raiment, and it is the duty of every other person to see that the need is supplied. The stress of this duty is graded partly by proximity (so that, other things equal, it begins with the nearest person), but chiefly by standing and responsibility in the group (which again are reckoned as equivalents of age, whereby it becomes the business of the first at the feast to see that enough is left to supply all below him; and this duty passes down the line in such wise as to protect the interests of the helpless infant, and even of the tribal good-for-naught or hanger-on, who may gather crumbs and lick bones within limits fixed by the tribal consensus. Beyond these limits lies outlawry; and this status arises and passes into the tribal recognition in various ways: Kalusio was outlawed for consorting with aliens, and Mashem narrowly missed the same fate at several stages of his career; the would-be grooms who fail in their moral tests are ostracized and at least semioutlawed, and range about like rogue elephants, approved targets for any arrow, until they perish through the multiplied risks of solitude, or until some brilliant opportunity for display of prowess or generosity brings reinstatement; deformed offspring are classed as outside the human pale, even when the deformity is defined rather by occult associations than by physical features; abnormal and persistent indolence, too serious for scorn and ostracism to cure, may also outpass the tribal toleration; and, as indicated by Mashem's guarded expressions and slight additional data, disease, mental aberration, and decrepitude are allied with indolence and deemed sufficient reason for excluding the persistently helpless from the tribal solidarity, and hence from recognized humanity—and the fate of the outlaw, even if nothing more severe than abandonment in the desert, is usually sure and swift. The entire customs of outlawry among the Seri are singularly like those of gregarious animals, including especially kine and swine in domestication. Now, studied equity in the distribution of necessaries might seem to be allied to thrift; but it is noteworthy that this is not so among the Seri, who take thought for one another but not for the morrow, who seem to have no conception of storage (save an incipient one in connection with water and the repulsive notion underlying the "second harvest"), and who habitually gorge everything in sight until their stomachs and gullets are packed—and then waste the fragments.

The division of labor which affects proprietary interests is undoubtedly affected in turn by the militant habit of the tribe and by the frequent decimation of the warriors. In general, the adult males limit their work to fighting and fishing, with occasional excursions into the hunt-

1: McGee E-5 (1894-1895)1898 NU31 Seri NU31

462 ing field; though by far the greater part of their time is spent in listless lounging or heedless slumber under the incidental guard of roaming youths and toiling women. The matrons are the real workers in the tribal hive; they are normally alert and active, passing from one simple task to another, gathering flotsam food along the beach or preparing edibles in the shadow of the jacal, with an eye ever on material possessions and children; they frequently join in hunting excursions of considerable extent; they are the chief manufacturers of apparel, utensils, and tools; and the scions of Castilian caballeros are not infrequently staggered at the sight of half a dozen Seri women "milling" a band of horses, and at intervals leaping on one to kill it with their hands. The masculine drones are the more petted and courted by reason of their fewness, for during a century or two, at least, the women [162] [562] have far outnumbered their consorts—a disproportion doubtless tending in some respects toward the disintegration of the clan system and, reciprocally, toward the firmer union of the tribe.

[756] One of the most noteworthy extensions of feminine functions among the Seri is toward shamanism. So far as could be ascertained from Mashém and the associated matrons at Costa Rica, it is such beldams as Juana María who conceive the arrow "poison", compound both necromantic medicines and curative simples, cast spells on men and things, and even fabricate the stone arrowpoints and counterfeit cartridges; though unhappily the data are neither so full nor so decisive as desirable.[1]

562 Conformably with their prominence in proprietary affairs, the Seri
623 matrons seem to exercise formal legislative and judicative functions; for not only do they hold their own councils for the arrangement of the domestic business of the rancherías, but they also participate prominently in the tribal councils (as explained by Mashém), and play important rôles in carrying out the decisions of such councils—as when they cooperate with war parties as decoys, or journey across their bounding desert to spy out the land of the enemy.

614 On the whole, it would appear that the clan organization of the Seri conforms closely with that characteristic of savagery elsewhere, especially among the American aborigines. The social unit is the maternal clan, organized in theory and faith in homage of a beast-god, though defined practically by the ocular consanguinity of birth from a common line of mothers; yet the several units are pretty definitely welded into [619] a tribal aggregate by common feelings, identical interests, and conjugal ties. The most distinctive features brought out by the incomplete 562 investigation are the somewhat exceptional manifestation of property-right in the females, the singularly strong sense of maternal relation, and the apparent prominence of females in shamanistic practices as well as in the tribal councils.

[1] The agency of the women in applying the arrow "poison" was noted by Hardy; cf. p. 288.

hundred Seris at a time. They lived in maternal groups or clans in which the elder females were of great prominence in the management of everyday affairs. When, in the wanderings of a family a new camp was decided upon, the elder matron usually erected the jacal alone, without the aid of men or boys, gathering the long poles of the ocotillo or the branches of desert trees and fashioning them into an arched framework over which a covering of brush, and often later of turtle shells, served to give protection from the desert sun. After the household was prepared, she took her place within easy reach of the meager and squalid family possessions, and around this nucleus other matrons and their children gathered in the course of a day or two. It was usually three or four days, and sometimes a week, before the brothers and husbands came wandering in from their roving search for food to take their places at the new camp site.

From the turtle fishing camps on the channel, the nearest fresh water was at a distance

[p.196(A)]

3:Davis & Dawson E-5 (1922-1960) 1945
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482 fashioned to fit the head (Fig. 7) and to aid in balancing the forty- to fifty-pound water-filled olla as it was carried over the rough and hilly trails from aguaje to jacal. (It is not certain whether the use of the shoulder pole, or palanca, was a part of original Seri culture, but in more recent times two water vessels were frequently carried, hung from either end of the notched pole.)

396 [462] While the tasks of supplying water and of manufacturing the vessels used in its transport were generally delegated to the women and children of the household, the building of the balsa was an undertaking that required the co-operation of the entire group. The carrizo canes were first gathered by the women and boys from the patches growing about the few permanent fresh waters of Seriland (Fig. 4). The leaves and tassels of the canes were removed by hand and the canes tied in bundles for carrying to the shore. There the men proceeded to lay, overlap, interlace and bind the canes into a larger and larger cylindrical bundle, tapering at

[p. 197(B)]

3:Davis & Dawson E-5 (1922-1940) 1945
NU31 Seri NU31

396 the extremities. Throughout the process the
cord used for lashing was laboriously made
[283] by hand and mouth by the women who ob-
tained the fibrous raw material from mes-
[462] quite tree roots, from the yucca or the
maguay. Three of the finished bundles were
lashed together to form a watercraft some
thirty feet in length and of four-foot beam.
These large balsas were buoyant enough to
carry several members of a family across El
Infiernillo channel. One-man balsas were
also made (Fig. 5) principally for use in
turtle fishing.

225 Except during the egg-laying season
411 turtles had to be sought from the balsa. The
Seris lacked tool sense in the extreme, but
their clumsy brains had devised a harpoon
for use against the turtle. The hard, pene-
trating point was commonly made of native
ironwood, but may also have been the sharp-
ened tooth of a sea lion or the shin bone of
a deer. It was fitted and firmly cemented
with mesquite gum to a short, hardwood
foreshaft whose rounded end fitted into the

[p. 197(C)]
[text continues on p. 198(B)]

Game pursuit is usually done on foot, mostly in the winter and very little in the summer. The intense heat of the desert in the summer makes hunting unattractive. The most frequent trophies are the Sonoran bighorn, peccary, cottontail and jack-rabbits. Sometimes, semi-wild burros, running loose on the adjacent extensive Mexican "rancherias", are poached for meat. The peccary is the only animal hunted with the aid of dogs. Large rodents are dispatched by sling-shot, stick, stone, or shot with a .22 caliber rifle. Birds, such as sea-gulls, ducks and pelicans, are clubbed, stoned or shot with a small caliber rifle.

While fishing and hunting are primarily men's occupations, the gathering of the terrestrial and marine animals is almost exclusively women's work. Rattlesnakes and other reptiles are often killed and brought to the encampments by the women from their morning trek into the desert after firewood and fruit. Small fish and marine invertebrates in the tidal pools are collected by women, aided by children of both sexes.

Preparation of meat is quite simple. It is either boiled in hot water with salt added as the only seasoning or else roasted whole, if small enough, over an open fire with or without a grill. The use of spices such as tomato sauce, chili, peppers, and the like, depend upon the tastes of the individuals and also upon the availability of money.

In individual competence as hunters or fishermen the men show a great deal of variability. Some excel in fishing while others do so in hunting. Hand in hand with this, goes the degree of knowledge of the local natural history and, as expected, the best fishermen lead in the knowledge of fishes while the best hunters possess the most extensive knowledge of terrestrial animals and insects. It has also been observed that boys were far ahead of adults in their knowledge of inconspicuous or otherwise commercially unimportant creatures such as insects, obscure marine invertebrates and small fishes. Interest in the commercially or otherwise economically important forms of animals unquestionably becomes overwhelming in adult life while much of the natural history lore learned in youth is forgotten.

Food Preferences and Taboos

A number of animals were reported as being a part of their diet in the past but which were not used at the present time. Several species of shells collected from kitchen middens along the coast were thus identified. In some instances it has been denied that a certain animal was used for food; yet, later when such a beast was brought to the camp, it would be added to the menu. Undoubtedly, some of the species were held in low esteem as food and the Seris preferred not to admit eating them.

Large fishes, especially pinta and baya, sea-turtles, and the very large chuckawalla lizard, which is brought back from rare expeditions to San Esteban Island, are the preferred cuisine. Cochi fish, also called puercos, are disdained. Large catches of these were frequently brought in from the sea, only to be unceremoniously dumped on the beach and left to the dogs and the vultures. But when other fish were scarce, the puercos were eaten. Pelicans, once an

POPULATION ABLE TO WORK
(between 11 and 65 years)

Men, 71 or 69% of the masculine population. 464
Women, 76 or 70% of the feminine population. 162
462

We can add that, at least as far as the male population is concerned, the figure of 69% with a potential work capacity is equivalent, in general terms, to the percentage of the population economically active, since one of the singular characteristics of the Seri population is the fact that they constitute a community fully occupied: all the men of working age have a place set aside in the fishing activities; this is an advantageous position for increasing economic development of the tribe. With relation to the women the situation is not the same, since the majority of girls of marriageable age carry on very few productive activities; it could be said that economic responsibility begins with matrimony. [226]

If it is true that all the Seri men are fishermen, it is also true that there is the beginning of some specialization of jobs, which are carried on complementing or as an accessory to the principal occupation. Thus we have among the men: 463 462 162

Carpenters, constructors of *piraguas* (a kind of canoe)	6
Medicine men	14
Farmers	2

And among the women:

Seamstresses	4
Farmers	1
Midwives	22

The relatively high number of medicine men and midwives should not be surprising; Seri popular medicine is very well known and depends principally on magical propitiation and since the magic powers are acquired in a variety of ways, including dreams, and the healing rites are, on the other hand, very simple, it is not strange that medicine men should abound. As for the midwives, it can be said that every woman who has undergone the experience of childbirth feels herself able to help at a birth; nevertheless, it is said that the more experienced women are those best able to take care of those giving birth. 755 756 844

Problems which should be attended to

In addition to the sanitary problem mentioned above, mention should also be made of the problem of agriculture, linked with the necessity for supplying food to an Indian population which since economically it depends principally on fishing, needs to complement its diet with agricultural products to achieve a better one. In close relation 185 262 241 423

8: Ascher E-5 (1960) 1962 NU31 Seri NU31

McGee (1898:214)

estimated that maritime resources provided two-thirds of the Seri diet. Kroeber (1931: 20), approximately 30 years later, estimated the proportion at about three-fifths. In the winter of 1960, 30 years after Kroeber's visit, the Seri were obtaining at least three-fifths of their food from the sea.

In pursuit of their main source of subsistence, the Seri travel up and down the narrow coastal band. In the winter of 1960 they were occupying one temporary camp toward the southern end of the band and a permanent camp at the northern extreme. Seri women and children gather mollusks; fishing is a male occupation. In addition to gathering and fishing for their own needs, the Seri dispose of a portion of their catch on the commercial market. This enterprise began about 1930, and was encouraged by the establishment, in 1958, of the Sociedad Cooperative de Produccion Pesquera Seri with the cooperation of the Mexican government.

The Pacific green turtle constitutes the largest single item in the Seri diet for at least six months of the year—from January to June—and it is also caught occasionally at other seasons. In 1896 McGee estimated that it provided 25 per cent of the total food supply. Emphasizing the intimate ecological relationship between the Seri and the turtle, McGee (1898: 186-187) wrote:

> ... perhaps half of the aggregate life of the tribe is spent within easy reach of its [the turtle's] feeding and breeding grounds, and tribesman and turtle have entered into an inimical communality something like that of the Siouan Indian and buffalo in olden time. ...

Kroeber (1931: 20) believed that McGee stressed the Seri-turtle relationship too strongly and overestimated its contribution to the diet. McGee (1898: 187), in support of the importance of the turtle to the Seri, points to the fact that the turtle carapace is used for, among other things, a house covering and buckler, a cradle, a coffin, and footgear. The carapace is currently used for supporting and roofing houses and as a starvation food. The contribution of the turtle to the diet varies from year to year, but observations made in 1960 suggest a range of from 15 to 20 per cent as a reasonable estimate.

Seri men fish for turtle from boats, which are manned by two or three men and are propelled by oars, sails, outboard engines, or any combination of the three. The boats operate either individually or in groups. The men fish by night or day, depending on the weather and sea conditions. When they fish at night, they use a kerosene lamp to attract turtles to the surface. The principal implement is the harpoon.

The harpoon tackle of the Seri is illustrated in Figure 1. It consists of a foreshaft (c-h), a mainshaft (j-k), and an extension cord (i). The component parts of the foreshaft are a projectile point (c), a gasket (d), a wrapping cord (f), a hafting base (g), and a lead cord (e and h). In preparation for turtle fishing, the hafting base (g) is plugged into the socket (j) on the main shaft (k), and the extension cord (i) is looped through the lead cord (h).

226 411 177 commercial origin are their main instruments of fishing. To this they added dynamite, sometimes with disastrous results to themselves, mostly as a way of securing bait. Single-pointed fish-spears which loomed so importantly in McGee's account have gone the way of the Dodo for its original purpose and transformed into iron bar lances, now used largely as weapons against rattlesnakes that men encounter in their desert roamings. However, in the forties, when the Seris spent a great deal of time getting sharks and huge rays, they killed them with these weapons.

226 411 What retain some importance are the harpoon and the two-pronged spear called "puiero." The two-pronged spear is one of their oldest weapons. The construction is much the same as when McGee visited them. The spear is used mainly to stab large-size fish, the giant *bais* or *mero* for example, after it has been brought up on the line. The [225] harpoon is now exclusively a weapon for the turtle hunt.

226 177 [157] An interesting fate met an effort to teach these Indians net fishing in 1947. They tried, ruined the nets and never took it up since. The instigators were Mexicans, the fish traders. I suspect that Seri individualism had a great deal to do with their lack of interest in net fishing which after all demands a certain amount of cooperation. With the hook and line fishing, men can have much more their own way.

501 177 648 An added "tool" of the Seris is the plank boat. The balsa which McGee still observed during his visit, had already vanished by the time Kroeber came to the Seriland and had been replaced by these boats. The boats are flat bottomed but good sized. The material was provided by the Mexican government. Boats are usually propelled by 5 hp. motors leased from the Mexicans (no Seri is rich enough to purchase [439] one) who also sell them gasoline and oil at exorbitant prices and in return buy Seris' catch of fish and sea turtle for low prices. At the time of my visits these amounted roughly to less than a peso [435] per kilo of the flayed, degutted and cleaned fish (less than 8 cents) with fluctuation up and down the scale depending on the kind of the fish, and to about 30-50 pesos for medium to large size "cahuama," the live marine turtle.

501 648 The Seri boats are also propelled by paddles and sail—this is always the case with the families who wish to stay away on Tiburon for some time. The Mexicans will not lease them their motors for such trips even if the Seri, some of them at least, have enough knowledge of the motors to repair minor stoppages—a demonstration of the fallacy [114] of McGee's idea that they are genetically unable to handle tools. In this respect, Kroeber's (1930: 25) estimate of them is closer to the truth.

462 [439] Sexual division of labor in procuring food goes on, much the same as it had 70 and 30 years ago, with the sole exception of the imported goods. Here purchases are made either by men or women or by children, depending on who at the time has the cash and what one wishes to buy.

Fishing is still done by men and so is hunting. Women still concentrate on gathering, whether of

[P.7 B]

462 desert plants or littoral fishlets from tide-pools or of the shellfish. Both men and women will [224] bring in an occasional rattler, although women [857] are more likely to do this because they spend more [883] time in the desert. Children of both sexes are engaged in the female occupations here, but adolescent boys already join in their fathers' hunts on land or sea.

342 Housing has undergone some changes. In the
184 desert or on Tiburon the Indians construct the kind of shelter they did in the recorded past, an ocotillo frame, bent over in the middle and covered up with dried plant debris and twigs from the desert, or with the sail cloth. But in Desemboque they have more substantial houses—of wattle and adobe, with flat roofs, rectangular or square, often with corrugated tin or drift planks and other debris piled up on top, or along the walls.

178 In the remainder of their material culture, not much has been left from years past although one must remember that from the very beginning of [291] recorded Serian history it has been of a most [412] meager sort. Pelican robes, which some Seris ap- [323] parently still wore in 1930 are gone for good. [301] So are the stone tools. So is the pottery which had [291] probably disappeared in Kroeber's time. The human hair necklace with rattlesnake rattles is also a thing of the past. The rattlesnake skin belts McGee (1898:170) described and figured are probably all gone. I havn't seen or heard of any.

412 But what remains much as they had been in
285 1894 are the bone-awls. These are made of burros' carpals and the blossoming of basketry, owing to

9:Malkin E-5 (1953-1955)1962 NU31 Seri NU31

Coyote figures out probably

as an important and perhaps disreputable figure in the mythology although nothing but scraps and bits of information suggest this. It is possible that there is actually a taboo on eating this animal or perhaps it is so disreputable that eating its flesh would put a gourmant in an inferior position.

How important is the Seri mammalian diet is hard to tell. It certainly looms more heavily during the winter, because in the cool season hunting is easier than during the heat of the summer and in fact this is when most of it is done by the ardent hunters. Too, winter subjects the Seris to greater hazards and is apt to increase their dependence on the desert resources over that during the summer, even if these resources are scantier at that time.

To all of these animals one should add the semi-wild burros running about the extensive Mexican rancherias. The Indians poach on them frequently using their fire arms, usually the .22 caliber rifles. In any case, it appears that during the summer when the field work was carried out, the mammalian diet figures quite lightly on the Seri table.

Food preparation: Very little is done in the preparation of the mammalian meat. All that I could observe was the boiling of it in hot water spiced with salt. The Indians were saying that in order to have the meat of a peccary, deer or bighorn ready to eat one must boil it 2-3 hours. The same procedure is followed with the meat of the burros. In contrast to this, as shall be seen later, fish are boiled as well as roasted while the turtles are also dried and salted. Preparation of meat is done by women, certainly at least in the encampments when they are present.

Food preferences: Some of the Seri food preferences have already been mentioned. At the top of the list as the desirables are the peccary, the deer, the bighorn and the blacktail jackrabbit; at the bottom is the badger, whose meat "is not much good." There is also preference by sex. Females of both the bighorn and peccary are preferred over the males "because they do not have the bad odor like the males." This sort of favoritism also occurs among the Mexicans. However, the Indians did not elaborate beyond this point.

Other economic uses: Apart from meat, hides are also used. The hides of the deer, bighorn and peccary had been used for sleeping mats although this matter has been expressed in the past tense. Miguel Barnett also suggested that the bighorn hides had been used for clothing by the Indians in the past—but he neglected to say how long ago. During Kroeber's stays, no Seris went about in the animal or bird (pelican) skins but earlier when McGee visited them they went about in these simple garments. Judging then by Miguel's memory, the use of the bighorn hide for clothing must be pushed back to the period of World War I or even earlier.[1]

[1] Miguel Barnett indicated that the "fur" of the bighorn had once been worn for the cold season "but not now."

[P 10 A]

262 them to their shelter and held them there for several days before they and their families finally ate them up. The turtles are also a well-liked item.

As already indicated in some instances there exista preference for a particular part of an animal. Of the Gila monster only the fat tail was said to have been eaten, and of both rattlers, the head and the tail are discarded on the grounds
* [825] that they contain toxin. Finally the toad and the gecko and *Xanthusia* are all rejected as completely venomous.

178 It is also evident that changes in the Seri
262 taste have occured in the course of the past several decades. Some animals are on their way out as food, and here we have the Gila monster, the whipcoach, the red racer and smaller lizards. In several cases, and this includes the Gila monster, the responses indicated that the animal had been eaten in the past. I also observed that on the sly, the Seris would eat them when other food was in short order. But they are reluctant to admit this and often altogether denied it.

Hunting

224 Most reptiles are captured by hand or else killed
[225] with a stick, stone or pea-shooter. Except for the turtles, the Seris will not make special expeditions. But it is certain that if they find themselves on any of the islands near the shores of Baja California they will go ashore deliberately in search of the chuckawalla.

225 The turtles are another matter. Here now, just as in the past, special expeditions are made in order to get them. These expeditions take place
[501] nowadays in the usual flat-bottomed plank boats, either motor or oar propelled. The hunt takes place only during unusually quiet and dark nights, when the Gulf is smooth and calm and there is neither wind nor ripple. With the slightest disturbance,
[354] turtle fishing is impossible. It is all done with the
[411] torch lights or Coleman lanterns. The principal and only weapon is the harpoon, identical with that described and illustrated by McGee. The turtles are then harpooned, dragged into the boat and either left alive, when the hunters have a sale of live ones in mind, or pounded to death with a
[251] club or oar, quartered and then either consumed on the spot or else dried and salted."

[224] While the collecting of the smaller animals us-
● [462] ually falls to the children or women, turtle hunting is men's job. Men, too, usually get the chuckawalla because they usually visit more distant islands.

Pets

231 None of the reptiles are pets in a real sense. Those few that might be kept are only held until the day when they are butchered and eaten. It is motivated more by the wish to preserve fresh food than by any affection for the animal. The turtles, the tortoises and the chuckawalla belong here. Occasionally a Seri boy will string a lizard, a *Seel-*

"The loggerhead is hunted in the daytime because, owing to its great strength, night hunt would be too dangerous. Two harpoons are always used on it, while for the smaller species, one harpoon usually suffices.

*825 439 [226] [415] [435] que (as a result of the ecology of the coastal waters) it is gathered in huge quantities largely on the shores of Tiburon where it is said to occur in great numbers. This animal is gathered in large bulk in 5 gallon gasoline cans and then sold either as finished necklaces at the rate of five pesos each, or as bulk, by the liters, with 20 liters for each gasoline can. There is a steady market for these shells.

226 e) *Bait:* Only the octopus has been reported as used for fish bait for the *pinta*, *baya* and *pescara*, and I have seen it used in that manner. But it is certain that on occasion the Seri will use also for bait the flesh of some of the shelled smaller molluscs, especially when they wish to capture live fishlets for bait.

Hunting

● [462] [857] Collecting of molluscs is almost invariably a job of adult women and of the children of both sexes who at low tides scavenge the exposed mud flats and gather or dig out various marine animals. Some are collected on the surface only. Among those that must be excavated are the octopus and *Nioche* which hide in burrows or mud, respectively. A large shell is usually used as a tool to pry the *Nioche* out.

Taxonomy

*825 Molluscs on the whole are recognized as one group of animals. However, this does not include the octopus and the chitons which are considered as different sort of creatures. Some sort of feeble association between the *Pelecypods* and the *Gastropods* is recognized and various species of both are placed together. I noticed a tendency to consider some of the *Gastropods*, the limpets and *Crepidula* for example, as supposedly having two valves while in fact they are both univalves. The explanation offered for this was "it lost one side," meaning one valve.

Although *Chitons* spend most of their time motionless attached to rocks they are both considered animals. The motions of these animals may not [857] have been observed by the adult, but the Indians, young boys especially, certainly noticed the changed positions after a period of time.

In some instances the Seris observed quite small differences between animals—recognizing them as different species. In the *Neritina* two different forms were correctly identified as representative of the same species, although they differed considerably in size and color. On the other hand *Columbella* and *Solenostira* had been given the same Seri name palémex[s] but were recognized as different kinds of animals.

Sexing

A distinct tendency to consider the molluscan males larger than the females emerges readily from the Seri answers. This can be shown in the table below:

[P. 40 A]

9:Malkin E-5 (1953-1955)1962 NU31 Seri NU31

XI

SUMMARY

224 Hunting is very decidedly secondary to fishing, although it is still much practiced by certain individuals and in a desultory way probably by all.

●462 There is a clean cut division of labor in all these occupations. Fishing and hunting are men's occupations, gathering of the desert animals and beachcombing for the intertidal animals is largely the job of women and children. Boys get broken [868] into men's occupations in adolescence, girls into women's jobs very much earlier.

224 Avoidance of fishing or hunting certain creatures appears much more a matter of custom than of well defined and socially rationalized attitude. Frequently an animal is not hunted simply because the Seri feel it is too big and too strong for them to tackle.

157 Through all these activities, Seri individualism is curiously woven and accounts for the failure of anything that might resemble a collective effort.

Food Preferences and Preparation

252 Seri food is prepared in a simplest sort of way. [263] Boiling in water is usual with salt and sometimes a few other spices added. While most food is prepared that way, snakes and fishes are usually fried, without any ingredients. There has been a [178] notable shift toward greater fanciness in the ingredients, as they have become more readily available.

262 There are many preferences. Animals are scaled in desirability. Some fishes, marine turtles, chuckawalla, deer and peccary and duck are at the top of the list; lower animals, smaller fishes including puerco in the middle, while the sea gull and the pelican are probably at the very bottom of the pit. This again reflects temporal changes in tastes [178] although not necessarily a direct influence from the Mexicans.

Pets

231 Few pets are kept, other than dogs. Such animals as come are those captured accidentally. In most cases they are bird nestlings.

Taxonomy

* 825 Differential criteria are applied in the classification of different groups. There is less tendency to group birds than to group different mammals and classificatory ideas break down almost completely in smaller animals, especially insects and molluscs. Considering the economic importance of the molluscs, poor ability to distinguish the Gastropods from the Pelecypods is striking.

The classificatory criteria differ for different groups. Mammals are generally recognized by the furiness, birds by the ability to fly and the pres-

[P·54 B]

535 semi-darkness.
123 Soon two little boys joined the dance, stepping up and down in the sand. Lighted only by the flickering flames of the driftwood fires on the shores of this mysterious and dreaded isle, the soft murmur of the sea as a refrain to the wild chanting, the weird circling of glittering eyes, and wild dark faces, presented a scene of uncanny and savage fascination witnessed by white men probably for the first time.

[533] After each stanza there was a short rest. The singing was similar to most other tribal chanting.

582 836 622 Bob made the remark that the girl was old enough to be broken in by the old Chief. I said, "How?"

583 [839] He said, when a girl thirteen or fourteen has her menses, the Chief takes her and goes through the family act. This is called 'breaking her in'. She is then eligible for marriage. A young man desiring marriage has to purchase the girl by giving the father a boat or rifle, both being necessary to the Seri's existence and protection. At the wedding they have sort of a fiesta and much mescal is drunk, which properly solemnizes a wedding.

585 844 845 When a girl has a baby it usually comes very naturally and easily, but I remember one girl's first baby was three days in coming, and she suffered a great deal. This was on a subsequent trip. She was staying with many of her people on the mainland and someone asked them if they didn't want a doctor or other help. They said: No, they had one. It was a Medicine Man who chanted over the girl and dug hollows in the sand to fit her heels into. He said that the legs had to be kept apart. This was all he did. But ordinarily there is no trouble, and if a baby is born at noon the mother is up and doing, and cooks supper for her lord and master. The men treat their wives with kindness and each shares with the other any delicacy.

462 [593] [482] In Seriland domestic duties are reversed from the usual Indian methods. The men get the water and the women get the wood. This consists mostly of driftwood gathered along the shore, and it is a picturesque sight to see a string of women and girls bringing in loads of wood in baskets on their heads at sunset.

622 595 There are no plural marriages, but sometimes when a Chief is old, or rather when his wife is old and can have no more babies, he can take a younger woman as his wife. The present Chief is getting old now, almost too old to break in the girls, so they may get a younger man. This might be called the perquisites of office. He takes the cream.

832 825 They hunt lice in the head and eat them. This is said to increase the amorous desires. The penis of the male turtle is cut out and dried. This is pounded and pulverized and placed in the food of the women. This is said to create a desire for a man and the family act.

12: Moser L-5 (no date) 1964
(ca. 1960) NU31 Seri NU31

SERI BLUE

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ABSTRACT

The blue which the Seri Indians of Sonora, Mexico, use in face painting is not the mineral dumortierite, as previously believed, but is a prepared pigment. This paper is a description of the process in which three elements are combined to produce this pigment.

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McGee and Kroeber reported the mineral dumortierite as the source of the blue pigment used in Seri face painting (McGee 1898: 165-6; Kroeber 1931: 27). Coolidge described two blues, one a mixture of gypsum and a boiled root, the other a blue stone found on Tiburon Island (Coolidge 1939: 200). Xavier mentioned dumortierite and commercial bluing. She also referred to a third blue obtained from a plant on Tiburon (Xavier 1946). Present investigation has shown that as far as the Seri know, the only blues they have ever used are *ika?óil* "to cause to be blue" (commercial bluing) and the highly prized *?antezj kóil* "blue clay" of their own manufacture.[1]

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The components and the method of manufacture of *?antezj kóil* are said to have been taught to the women long ago by *?ant i?akímxoj* "they who tell the things about the earth." The actual color transformation is veiled in mystery to the Seri who say that if the process of making the clay is observed by any girl who has not passed the menarche, the blue will not appear. Its appearance is not attributed to shaman power, however.

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?antezj kóil has been in less demand during the last few decades since commercial bluing has been readily available. Nevertheless, *?antezj kóil* is the blue preferred by those women who continue to adorn their faces in the traditional manner.

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The three ingredients used in making the blue clay are the root bark of *xkoktz (Franseria dumosa)*, *iki kóizj* "to grind with" (a mixed clay in which montmorillonitic layers predominate), and *mokni óoxW* "excrement (sap) of *mókni (Guaiacum coulteri)*." The Seri say that the *iki kóizj* and the *mókni* are found only on Tiburon Island. The root bark of *tinkl (Franseria ambrosioides* Cav.) or of *xneejan stiktoj (Stegnospermum halimifoliam)* can be used instead of *xkoktz*. *tinkl* gives a distinct aroma to the clay. The plants mentioned are fairly common along the Sonoran coast.*

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*EDITOR'S NOTE: It is interesting to note that none of the ingredients is blue in its unaltered state.